

To: CN=Phil North/OU=R10/O=USEPA/C=US@EPA[]
Cc: CN=Michael Kravitz/OU=CI/O=USEPA/C=US@EPA[]
From: CN=Glenn Suter/OU=CI/O=USEPA/C=US
Sent: Mon 4/2/2012 12:45:40 AM
Subject: Re: Road treatments
north.phil@epa.gov

Ex. 5 - Deliberative

-----Phil North/R10/USEPA/US wrote: -----
To: Glenn Suter/CI/USEPA/US@EPA
From: Phil North/R10/USEPA/US
Date: 04/01/2012 05:00PM
Cc: Michael Kravitz/CI/USEPA/US@EPA
Subject: Re:

We did not describe de-icing in the scenario. The policy of ADOT is not to de-ice per se but to add traction. The sand has salt added to keep it from freezing so as to be workable. Sand is added to roads as needed, not routinely after storms, but as intersections or sections of road become slippery. Which is not all the time. The road maintenance crews get to know where to apply and when. Calcium chloride is added for dust control on dirt roads and, presumably, would be added to the Cook Inlet road.

Ex. 5 - Deliberative

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Environmental Protection Agency
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514 Funny River Road
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fax 260-5992
north.phil@epa.gov

"To protect your rivers, protect your mountains."

-----Glenn Suter/CI/USEPA/US wrote: -----
To: Michael Kravitz/CI/USEPA/US@EPA
From: Glenn Suter/CI/USEPA/US
Date: 04/01/2012 07:47AM
Cc: Phil North/R10/USEPA/US@EPA
Subject: (Untitled)

We got a comment that this is very generic and perhaps incorrect. What is the actual treatment allowed by Alaska and commonly used by industry? For example, is the treatment of roads petroleum permitted or practiced?

In an earlier message Phil mentioned CaCl_2 as the salt mixed with sand in road treatment. Phil, are you describing road treatments as part of the scenario?

5.3.4. Salts and Dissolved Solids in Runoff

5.3.4.1. Exposure

Roads are treated with salts to melt snow and ice and with other materials to reduce dust. During periods of rain and snowmelt, these materials are washed off roads and into streams, rivers and wetlands where fish and their invertebrate prey can be directly exposed.

5.3.4.2. Exposure-response

Certain compounds used to control dust such as chloride salts, clays, lignosulfate or other organic compounds, and petroleum distillates (Hoover 1981) bring risk of toxic effects when they run off and enter surface waters. Salmonid fishes are sensitive to total dissolved solids, particularly at fertilization (Weber-Scannell and Duffy 2007). According to the US Forest Service (1999) application of chloride salts should be avoided at least within 8 m of surface waters or anywhere groundwater is near the surface. Adverse biological effects are likely to be particularly discernible in naturally low-conductivity waters like those of the Bristol Bay watershed, though research is needed to substantiate this (Appendix E).

5.3.4.3. Risk characterization

The risks to salmonid fish from deicing salts would depend upon the salts used and the amount and frequency of their use, none of which are specified in the scenario. However, the risks are potentially locally significant. The transportation corridor would intersect more than 30 streams and rivers known to support spawning salmon and many other streams that support resident fishes, including 268.9 km (167.1 miles) of stream between road crossings and Lake Iliamna. Also, runoff from 8.1 km of road that intersects wetlands within the National Wetlands Inventory-digitized area and more wetlands outside the digitized area would be expected to have a large impact.